

## **WHAT IS CLAIMED IS:**

1. A slot antenna, comprising:

a first dielectric substrate including slots formed on a top and a bottom of the first dielectric substrate, ground surfaces formed on the top and the bottom respectively, and a first connection unit for connecting ground surfaces formed on the top and the bottom; and

a second dielectric substrate, which is stacked on the first dielectric substrate, including a microstrip feeding line formed on the bottom of the second dielectric substrate to feed electromagnetic energy and a second connection unit for connecting the microstrip feeding line and the ground surface formed on the bottom of the first dielectric substrate.

2. The slot antenna, according to claim 1, wherein the first connection unit and/or the second connection unit are formed to have a shape of at least one conduction hole in the dielectric substrate, or a shape of conduction walls on side surfaces of the dielectric substrate.

3. The slot antenna, according to claim 1, wherein the slots formed on the top of the first dielectric substrate are constructed to represent a bend shape.

4. The slot antenna, according to claim 1, wherein the slots formed on the top of the first dielectric substrate are constructed to iteratively repeat two bend shapes and the slot formed on the bottom of the first dielectric substrate comprises a portion for connecting between two bend-shaped portions.

5. The slot antenna, according to claim 1, wherein the slot formed on the top and bottom of the first dielectric substrate is constructed to iteratively repeat two bend shapes and to be separated at given interval.
6. The slot antenna, according to claim 5, wherein the separated slots resonate in two neighbor frequency areas to extend a frequency bandwidth of the antenna.
7. The slot antenna, according to claim 6, wherein the two separated slots are arranged in parallel at particular interval in order to improve a coupling effect at a location utmost adjacent the separated slots.
8. A slot antenna, comprising;  
slots formed on a top and a bottom of a dielectric substrate;  
ground surfaces formed on the top and the bottom as a structure for defining the slots; and  
a microstrip feed line formed to be electrically isolated from the ground surface on the top of the dielectric substrate, to be electrically connected thorough connection units to the ground surface on the bottom of the dielectric substrate, and to be crossed with the slots formed on the bottom of dielectric substrate.
9. The slot antenna, according to claim 1, wherein the electric fields on

the top and the bottom of the dielectric substrate are generated in the same direction.

10. The slot antenna, according to claim 2, wherein the electric fields on the top and the bottom of the dielectric substrate are generated in the same direction.

11. The slot antenna, according to claim 3, wherein the electric fields on the top and the bottom of the dielectric substrate are generated in the same direction.

12. The slot antenna, according to claim 4, wherein the electric fields on the top and the bottom of the dielectric substrate are generated in the same direction.

13. The slot antenna, according to claim 5, wherein the electric fields on the top and the bottom of the dielectric substrate are generated in the same direction.

14. The slot antenna, according to claim 6, wherein the electric fields on the top and the bottom of the dielectric substrate are generated in the same direction.

15. The slot antenna, according to claim 7, wherein the electric fields on

the top and the bottom of the dielectric substrate are generated in the same direction.

16. The slot antenna, according to claim 8, wherein the electric fields on the top and the bottom of the dielectric substrate are generated in the same direction.